Ms. Deborah L. Calderazzo
Allegheny Ludlum Corporation
100 River Road
Brakenridge, PA 15014

Re: **065-12537**
**First Significant Permit Modification** to
**Part 70 No.: T 065-7593-00014**

Dear Ms. Calderazzo:

Allegheny Ludlum Corporation was issued a Part 70 operating permit, T 065-7593-00014, on July 13, 1999 for a stationary metal heat treating and cold rolled steel sheet source. A first Minor Source Modification 065-11243-00014 was issued on November 30, 1999 and a first Administrative Amendment 065-11398-00014 was issued on December 20, 1999. A letter requesting changes to this permit was received on June 26, 2000. Additional information was received on October 2, 2000. Pursuant to the provisions of 326 IAC 2-7-12 a significant permit modification to this permit is hereby approved as described in the attached Technical Support Document.

The modification consists of removing all references to Agreed Order, Cause A-3586, because the Agreed Order has expired; changing reporting requirements for the natural gas fired boilers from quarterly to semi-annually; and changing the Strip Grinder to a Strip Grinder/Polisher and the Strip Polisher to an insignificant soap and water cleaning operation.

All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this modification and the following revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact CarrieAnn Ortolani, c/o OAM, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, at 631-691-3395 or in Indiana at 1-800-451-6027 (ext 631-691-3395).

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

Attachments
cc: File - Henry County
U.S. EPA, Region V
Air Compliance Section Inspector - Warren Greiling
Compliance Data Section - Karen Nowak
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michelle Boner

# PART 70 OPERATING PERMIT
# and ENHANCED NEW SOURCE REVIEW
# OFFICE OF AIR MANAGEMENT

## Allegheny Ludlum Corporation
## State Route 38 West
## New Castle, Indiana 47362

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 and 326 IAC 2-1-3.2 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

| | |
|---|---|
| Operation Permit No.: T 065-7593-00014 | |
| Issued by:<br>Janet G. McCabe, Assistant Commissioner<br>Office of Air Management | Issuance Date: July 13, 1999 |

First Minor Source Modification 065-11243-00014 issued on November 30, 1999
First Administrative Amendment 065-11398-00014 issued on December 20, 1999

| | |
|---|---|
| First Significant Permit Modification<br>065-12537-00014 | Pages Affected: 4, 7, 35, 36, 37, 39, 40, 41, 42, 43, 46, 47 |
| Issued by:<br>Paul Dubenetzky, Branch Chief<br>Office of Air Management | Issuance Date: |

**D.2 FACILITY OPERATION CONDITIONS -No. 11 A&P Line Acid Pickling, No. 12 A&P Line Acid Pickling, and No. 12 A&P Line Kolene Rinse**

**Emission Limitations and Standards [326 IAC 2-7-5(1)]**
D.2.1 Particulate Matter (PM) [326 IAC 6-3-2(c)]
D.2.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

**Compliance Determination Requirements**
D.2.3 Testing Requirements [326 IAC 2-7-6(1),(6)]
D.2.4 Particulate Matter (PM)

**Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**
D.2.5 Visible Emissions Notations
D.2.6 Parametric Monitoring

**Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**
D.2.7 Record Keeping Requirements

**D.3 FACILITY OPERATION CONDITIONS - North Boiler, Middle Boiler, and South Boiler**

**Emission Limitations and Standards [326 IAC 2-7-5(1)]**
D.3.1 Particulate Matter (PM) [326 IAC 6-2-3]

**Compliance Determination Requirements**
D.3.2 Testing Requirements [326 IAC 2-7-6(1),(6)]

**Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**
D.3.3 Reporting Requirements

**D.4 FACILITY OPERATION CONDITIONS - Strip Grinder/Polisher**

**Emission Limitations and Standards [326 IAC 2-7-5(1)]**
D.4.1 Particulate Matter (PM) [326 IAC 6-3-2(c)]
D.4.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

**Compliance Determination Requirements**
D.4.3 Testing Requirements [326 IAC 2-7-6(1),(6)]

**Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**
D.4.4 Particulate Matter (PM)
D.4.5 Oil Mist Eliminator Inspections
D.4.6 Failure Detection
D.4.7 Visible Emissions Notations

**Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**
D.4.8 Record Keeping Requirements

(f) One (1) No. 12 A&P Kolene Rinse, identified as S002C, constructed in 1967 and replaced in 1996, using a chemical scrubber identified as D003 as control, and exhausting to stack P004, maximum capacity: 27 tons of steel per hour.

(g) One (1) No. 12 A&P Line Acid Pickling Facility, identified as S002D, constructed in 1967, using a chemical scrubber identified as D003 as control, and exhausting to stack P004, maximum capacity: 27 tons of steel per hour.

(h) One (1) North Boiler, identified as S006, installed in 1966, fired by natural gas and exhausting to stack P011, maximum heat input capacity: 20.92 million British thermal units per hour.

(i) One (1) Middle Boiler, identified as S007, installed in 1966, fired by natural gas and exhausting to stack P012, maximum heat input capacity: 10.46 million British thermal units per hour.

(j) One (1) South Boiler, identified as S008, installed in 1966, fired by natural gas and exhausting to stack P013, maximum heat input capacity: 10.46 million British thermal units per hour.

(k) One (1) Strip Grinder/Polisher, identified as S003A, composed of four (4) grinding heads and four (4) eliminators, constructed in 1967, using oil mist eliminators identified as D004, D005, D006 and D008 as control, and exhausting to stack P007, maximum capacity: 25 tons of steel per hour.

(l) One (1) Z-Mill, identified as S004, constructed in 1967, using an oil mist eliminator identified as D007 as control, and exhausting to stack P009, maximum capacity: 35 tons of steel per hour.

(m) One (1) Temper Mill, identified as S005, constructed in 1967, and exhausting to fugitive emission point P010, maximum capacity: 50 tons of steel per hour.

(n) Three (3) Parts Cleaners, identified as S009A, constructed between 1980 and 1988, using a sealed reservoir as control, and exhausting to fugitive emission point P014, maximum throughput: 0.5 gallons of mineral spirits per hour.

(o) One (1) Parts Cleaner, identified as S009B, constructed between 1980 and 1988, using a sealed reservoir as control, and exhausting to fugitive emission point P015, maximum throughput: 0.5 gallons of kerosene per hour.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

(a) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.

(b) One (1) Soap and water cleaning operation, identified as S003B, constructed in 1967, and exhausting to stack P008, maximum capacity: 25 tons of steel per hour.

**Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

D.2.5 Visible Emissions Notations

(a) Daily visible emission notations of the No. 11 A&P Line Acid Pickling, No. 12 A&P Line Acid Pickling, and No. 12 A&P Line Kolene Rinse (S001D, S002D, and S002C) stack (P004) exhaust shall be performed once per working shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

D.2.6 Parametric Monitoring

The Permittee shall take pressure, scrubbing liquid (water) flow rate, and recirculation pH readings from the wet chemical scrubber controlling the No. 11 A&P Line Acid Pickling, No. 12 A&P Line Acid Pickling and No. 12 A&P Line Kolene Rinse (S001D, S002D, and S002C), at least once per day when either of the facilities are in operation when venting to the atmosphere. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the pressure drop across the wet chemical scrubber (D003) shall be maintained within the range of 2 to 10 inches of water and the flow rate for scrubbing liquid shall be maintained above 200 gallons of water per minute or within a range and flow rate established during the latest stack test. The recirculation pH shall be maintained above 9.0. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when the pressure reading is outside of the above mentioned range for any one reading.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAM, and shall be calibrated at least once every six (6) months.

**Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

D.2.7 Record Keeping Requirements

(a) To document compliance with Condition D.2.1, D.2.4, and D.2.5, the Permittee shall maintain records of daily visible emission notations of the No. 11 A&P Line Acid Pickling, No. 12 A&P Line Acid Pickling, and No. 12 A&P Line Kolene Rinse (S001D, S002D, and S002C) stack (P004) exhaust.

(b) To document compliance with Condition C.3, the Permittee shall maintain records of opacity observations of the No. 11 A&P Line Acid Pickling, No. 12 A&P Line Acid Pickling and No. 12 A&P Line Kolene Rinse (S001D, S002D and S002C) stack (P004) exhaust.

(c) To document compliance with Condition D.2.7, the Permittee shall maintain the following:

(1) Daily records of the following operational parameters during normal operation when venting to the atmosphere:

(A) pressure drop;

(B) scrubbing liquid (water) flow rate; and

(C) recirculation PH.

(2) Documentation of all response steps implemented, per event.

(3) Operation and preventive maintenance logs, including work purchases orders, shall be maintained.

(4) Quality Assurance/Quality Control (QA/QC) procedures.

(5) Operator standard operating procedures (SOP).

(6) Manufacturer's specifications or its equivalent.

(7) Equipment "troubleshooting" contingency plan.

(8) Documentation of the dates vents are redirected.

(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

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**Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

D.3.3 Reporting Requirements

The Permittee shall certify within thirty (30) days after the end of the six-month period being reported, using the reporting form located at the end of this permit, or its equivalent, which fuels were fired in the boilers during the report period and the dates of use.

## SECTION D.4 FACILITY OPERATION CONDITIONS

**Facility Description [326 IAC 2-7-5(15)]**

(k) One (1) Strip Grinder/Polisher, identified as S003A, composed of four (4) grinding heads and four (4) eliminators, constructed in 1967, using oil mist eliminators identified as D004, D005, D006 and D008 as control, and exhausting to stack P007, maximum capacity: 25 tons of steel per hour.

**Emission Limitations and Standards [326 IAC 2-7-5(1)]**

D.4.1 Particulate Matter (PM) [326 IAC 6-3-2(c)]

The particulate matter (PM) emissions from the Strip Grinder/Polisher (S003A) shall be limited to 35.4 pounds per hour for a process weight rate of 25.0 tons per hour. The limits stated above are based on the following equation for facilities with process weight rates of up to 60,000 pounds per hour:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour, and
P = process weight rate in tons per hour.

D.4.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the Strip Grinder/Polisher and its control device.

**Compliance Determination Requirements**

D.4.3 Testing Requirements [326 IAC 2-7-6(1),(6)]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the PM limit specified in Condition D.4.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

**Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

D.4.4 Particulate Matter (PM)

The mist eliminators (D004, D005, D006 and D008) for PM control shall be in operation at all times when the Strip Grinder/Polisher is in operation and exhausting to the outside atmosphere.

D.4.5 Oil Mist Eliminator Inspections

The following inspections shall be performed of the oil mist eliminators (D004, D005, D006 and D008) controlling the Strip Grinder/Polisher when venting to the atmosphere.

(1) Monthly inspections of the motor amperages during normal operation:

(2) Quarterly inspections of the following operational parameters during normal operation:

(A) Mist eliminator inspections for oil/solids build up and plugging. Clean, as required.

(B) Fan impeller inspections for solids buildup or erosion. Clean or repair, as required.

(3) Annual inspections of the exhaust system components for solids buildup and signs of corrosion or excessive wear which may impact the operation of the oil mist eliminators. Clean or replace, as required.

D.4.6 Failure Detection

In the event that failure of the oil mist eliminators has been observed:

(a) The affected oil mist eliminators will be shut down immediately until the failed units have been cleaned or replaced.

(b) Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Preventive Maintenance Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Preventive Maintenance Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion.

D.4.7 Visible Emissions Notations

(a) Daily visible emission notations of the Strip Grinder/Polisher stack exhaust (P007) shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

**Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

D.4.8 Record Keeping Requirements

(a) To document compliance with Condition D.4.5, the Permittee shall maintain the following:

(1) Monthly records of the motor amperage inspections during normal operation when venting to the atmosphere.

(2) Quarterly records of the following operational parameters during normal operation when venting to the atmosphere:

(A) Mist eliminator inspections for oil/solids build up and plugging.

(B) Fan impeller inspections for solids buildup or erosion.

(3) Annual records of the inspections of exhaust system components for solids buildup and signs of corrosion or excessive wear which may impact the operation of the oil mist eliminators.

(4) Documentation of all response steps implemented, per event.

(5) Operation and preventive maintenance logs, including work purchases orders, shall be maintained.

(6) Quality Assurance/Quality Control (QA/QC) procedures.

(7) Operator standard operating procedures (SOP).

(8) Manufacturer's specifications or its equivalent.

(9) Equipment "troubleshooting" contingency plan.

(10) Documentation of the dates vents are redirected.

(b) To document compliance with Condition D.4.4 and D.4.7, the Permittee shall maintain records of daily visible emission notations of the Strip Grinder**/**Polisher (S003A) stack (P007) exhaust.

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

## SECTION D.5 FACILITY OPERATION CONDITIONS

**Facility Description [326 IAC 2-7-5(15)]**

(l) One (1) Z-Mill, identified as S004, constructed in 1967, using an oil mist eliminator identified as D007 as control, and exhausting to stack P009, maximum capacity: 35 tons of steel per hour.

(m) One (1) Temper Mill, identified as S005, constructed in 1967, and exhausting to fugitive emission point P010, maximum capacity: 50 tons of steel per hour.

**Emission Limitations and Standards [326 IAC 2-7-5(1)]**

D.5.1 Particulate Matter (PM) [326 IAC 6-3-2(c)]

The particulate matter (PM) emissions from the Z-Mill (S004) shall be limited to 41.3 pounds per hour for a process weight rate of 35.0 tons per hour. The limit stated above is based on the following equation for facilities with the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 55.0\ P^{0.11} - 40$ where E = rate of emission in pounds per hour, and
P = process weight rate in tons per hour.

D.5.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the Z-Mill and its control device.

**Compliance Determination Requirements**

D.5.3 Testing Requirements [326 IAC 2-7-6(1),(6)]

The Permittee is not required to test these facilities by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facilities are in compliance. If testing is required by IDEM, compliance with the PM limit specified in Condition D.5.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

**Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

D.5.4 Particulate Matter (PM)

The mist eliminator (D007) for PM control shall be in operation at all times when the Z-Mill is in operation and exhausting to the outside atmosphere.

D.5.5 Oil Mist Eliminator Inspections

The following inspections shall be performed of the oil mist eliminator (D007) controlling the Z-Mill when venting to the atmosphere.

(1) Monthly inspections of the motor amperages during normal operation when venting to the atmosphere.

(2) Quarterly inspections of the following operational parameters during normal operation when venting to the atmosphere:

## SECTION D.6 FACILITY OPERATION CONDITIONS

**Facility Description [326 IAC 2-7-5(15)]**

(n) Three (3) Parts Cleaners, identified as S009A, constructed between 1980 and 1988, using a sealed reservoir as control, and exhausting to fugitive emission point P014, maximum throughput: 0.5 gallons of mineral spirits per hour.

(o) One (1) Parts Cleaner, identified as S009B, constructed between 1980 and 1988, using a sealed reservoir as control, and exhausting to fugitive emission point P015, maximum throughput: 0.5 gallons of kerosene per hour.

**Emission Limitations and Standards [326 IAC 2-7-5(1)]**

D.6.1 Volatile Organic Compounds [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Organic Solvent Degreasing Operations), the owner or operator of the (3) Parts Cleaners, identified as S009A, and the one (1) Parts Cleaner, identified as S009B, shall:

(a) equip the cleaner with a cover;

(b) equip the cleaner with a facility for draining cleaned parts;

(c) close the degreaser cover whenever parts are not being handled in the cleaner;

(d) drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;

(e) provide a permanent, conspicuous label summarizing the operating requirements;

(f) store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

D.6.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and their control devices.

## SECTION D.7 FACILITY OPERATION CONDITIONS

**Facility Description [326 IAC 2-7-5(15)]** - Insignificant Activities

(a) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.

(b) One (1) Soap and water cleaning operation, identified as S003B, constructed in 1967, and exhausting to stack P008, maximum capacity: 25 tons of steel per hour.

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.7.1 Particulate Matter (PM) [326 IAC 6-3]

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the brazing equipment, cutting torches, soldering equipment, and welding equipment and from the soap and water cleaning operation shall not exceed allowable PM emission rate based on the following equations:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

or

Interpolation and extrapolation of the data for the process weight rate in excess of 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 55.0\ P^{0.11} - 4$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

### Compliance Determination Requirement

D.7.2 Testing Requirements [326 IAC 2-7-6(1),(6)]

The Permittee is not required to test these facilities by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facilities are in compliance. If testing is required by IDEM, compliance with the PM limit specified in Condition D.7.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

# Indiana Department of Environmental Management
# Office of Air Management

## Addendum to the Technical Support Document for a Significant Permit Modification to a Part 70 Operating Permit

| | |
|---|---|
| **Source Name:** | **Allegheny Ludlum Corporation** |
| **Source Location:** | **State Route 38 West, New Castle, Indiana 47362** |
| **County:** | **Henry** |
| **Operation Permit No.:** | **T 065-7593-00014** |
| **Significant Permit Modification No.:** | **SPM 065-12537-00014** |
| **SIC Code:** | **3316 and 3398** |
| **Permit Reviewer:** | **CarrieAnn Ortolani** |

On November 22, 2000, the Office of Air Management (OAM) had a notice published in the Courier Times, Newcastle, Indiana, stating that Allegheny Ludlum Corporation had applied for a Significant Permit Modification to a Part 70 Operating Permit. The notice also stated that OAM proposed to issue a Significant Permit Modification and provided information on how the public could review the proposed Significant Permit Modification and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this Significant Permit Modification to a Part 70 Operating Permit should be issued as proposed.

On January 15, 2001, Mark Sedlak of Allegheny Ludlum Corporation submitted comments on the proposed Significant Permit Modification to a Part 70 Operating Permit. The comments are as follows (The permit language, if changed, has deleted language as ~~strikeouts~~ and new language **bolded.**):

**Comment 1:**

The cover letter to Allegheny Ludlum Corporation lists our city/state mailing address as Brakenridge, IN rather than Brakenridge, PA. Please make note of the correct mailing address for future correspondence. Also note that all environmental/regulatory correspondence should be sent to Deborah Calderazzo at the Brakenridge, PA address.

**Response 1:**

The address on the cover letter has been corrected.

**Comment 2:**

Strip Grinder/ Polisher – Page 40 of 52 of the subject modification indicates that the Strip Grinder/ Polisher is composed of four (4) grinding heads and four (4) eliminators. However, only three (3) mist eliminators are identified: D004, D005 and D006. Please be advised that there are four (4) mist eliminators at this unit. For clarification, an additional eliminator should be identified (proposed identification: D008) in Title V Operating Permit Section A.2, D.4 (facility description), D.4.4 and D.4.5. The four (4) mist eliminators exhaust to stack P007.

**Response 2:**

Item (k) of Section A.2 and the facility description in Section D.4 is revised as follows:

(k) One (1) Strip Grinder/Polisher, identified as S003A, composed of four (4) grinding heads

and four (4) eliminators, constructed in 1967, using oil mist eliminators identified as D004, D005**,** ~~and~~ D006 **and D008** as control, and exhausting to stack P007, maximum capacity: 25 tons of steel per hour.

Conditions D.4.4 and D.4.5 are revised as follows:

D.4.4 Particulate Matter (PM)

The mist eliminators (D004, D005**,** ~~and~~ D006 **and D008**) for PM control shall be in operation at all times when the Strip Grinder/Polisher is in operation and exhausting to the outside atmosphere.

D.4.5 Oil Mist Eliminator Inspections

The following inspections shall be performed of the oil mist eliminators (D004, D005**,** ~~and~~ D006 **and D008**) controlling the Strip Grinder/Polisher when venting to the atmosphere.

(1) Monthly inspections of the motor amperages during normal operation:

(2) Quarterly inspections of the following operational parameters during normal operation:

(A) Mist eliminator inspections for oil/solids build up and plugging. Clean, as required.

(B) Fan impeller inspections for solids buildup or erosion. Clean or repair, as required.

(3) Annual inspections of the exhaust system components for solids buildup and signs of corrosion or excessive wear which may impact the operation of the oil mist eliminators. Clean or replace, as required.

# Indiana Department of Environmental Management
# Office of Air Management

## Technical Support Document (TSD) for a Part 70
## Significant Permit Modification

**Source Background and Description**

| | |
|---|---|
| **Source Name:** | **Allegheny Ludlum Corporation** |
| **Source Location:** | **State Route 38 West, New Castle, Indiana 47362** |
| **County:** | **Henry** |
| **SIC Code:** | **3316 and 3398** |
| **Operation Permit No.:** | **T 065-7593-00014** |
| **Operation Permit Issuance Date:** | **July 13, 1999** |
| **Significant Permit Modification No.:** | **SPM 065-12537-00014** |
| **Permit Reviewer:** | CarrieAnn Ortolani |

The Office of Air Management (OAM) has reviewed a modification application from Allegheny Ludlum Corporation relating to significant changes to the existing Part 70 Operating Permit, T 065-7593-00014, issued on July 13, 1999.

**History**

On June 26, 2000, Allegheny Ludlum Corporation submitted an application to the OAM requesting changes to their existing Part 70 Operating Permit. Allegheny Ludlum Corporation was issued a Part 70 permit on July 13, 1999. A first Minor Source Modification, 065-11243-00014, was issued on November 30, 1999 and a first Administrative Amendment, 065-11398-00014, was issued on December 20, 1999.

**Enforcement Issue**

There are no enforcement actions pending.

**Recommendation**

The staff recommends to the Commissioner that the Part 70 Significant Source Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on June 26, 2000. Additional information was received on October 2, 2000.

**Permit Revisions**

(a) In this application, Allegheny Ludlum Corporation requested that all references to Agreed Order, Cause A-3586, be removed, because the Agreed Order has expired. These

references will be removed. As a result, there is a decrease in the reported requirements of Section D.2. Therefore, the modification will not qualify as a Minor Permit Modification because, pursuant to 326 IAC 2-7-12(b)(1)(B), Minor Permit Modification procedures may be used only for those permit modifications that do not involve significant changes to existing monitoring, reporting, or record keeping requirements in the Part 70 permit. A Significant Permit Modification will be issued pursuant to 326 IAC 2-7-12(d)(1), which states, "Significant modification procedures shall be used for applications requesting Part 70 permit modifications that do not qualify as minor permit modifications or as administrative amendments. Every significant change in existing monitoring Part 70 permit terms or conditions and every relaxation of reporting or record keeping permit terms or conditions shall be considered significant. Nothing in this subdivision shall be construed to preclude the Permittee from making changes consistent with this rule that would render existing Part 70 permit compliance terms and conditions irrelevant."

(b) Allegheny Ludlum Corporation also requested that the visible emission notations be changed from once per shift to daily in Conditions D.1.5(a) and D.2.6(a). The Addendum to the Technical Support Document for T 065-7593-00014 indicates that visible emission requirements are daily. The wording in Conditions D.1.5(a) and D.2.6(a) is not clear as to whether visible emission notations are required once per shift or once per day. However, IDEM, OAM, currently requires visible emission notations daily. Therefore, Conditions D.1.5(a) and D.2.6(a) will not be revised as requested.

(c) In the first Minor Source Modification, 065-11243-00014, issued on November 30, 1999, and the first Administrative Amendment, 065-11398-00014, issued on December 20, 1999, the permit was changed to allow only natural gas combustion at the boilers. Allegheny Ludlum Corporation has requested that the Natural Gas Fired Boiler Certification required by Condition D.3.3 be removed from the permit. Although all boilers are only permitted to operate on natural gas, it is IDEM policy to require that all natural gas combustion units with a capacity greater than or equal to 10 million British thermal units per hour submit a Natural Gas Fired Boiler Certification at least semi-annually. The requirement for a Natural Gas Fired Boiler Certification in the permit will be changed from quarterly to semi-annually.

(d) The emission unit (l) in Section A.2 of the Title V is not a strip polisher. The unit is used as a soap and water cleaning operation and only steam exhausts through stack P008. The emission unit (k) in Section A.3 of the Title V is a strip grinder and polisher. Allegheny Ludlum Corporation requested these changes to the permit. There is no change in emissions and there are no necessary changes to the permit except for a change in the descriptive information in Section A.3 and the facility description box in Section D.4. The soap and water cleaning operation is, therefore, an insignificant activity and will be moved to from Section A.2 to Section A.3 of the permit and from Section D.4 to Section D.7 of the permit, but all applicable requirements remain the same.

(d) Allegheny Ludlum Corporation also indicated that, although the emission unit description for (p) in Section A.2 is correct (one (1) parts cleaner, identified as S009B), the facility should be an insignificant activity due to the low volatility of kerosene. According to the usage rates provided during the Title V review, the emissions are greater than that of an insignificant activity. Therefore, this is a significant emission unit and there are no changes to the permit.

**Proposed Changes**

The permit language is changed to read as follows (deleted language appears as ~~strikeouts~~, new language appears in bold):

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

(a) One (1) No. 11 A&P Annealing Furnace, identified as S001A, modified in 1998, fired by natural gas and exhausting to fugitive emission point P001, maximum capacity: 27 tons of steel per hour, and maximum heat input capacity: 60 million British thermal units per hour.

(b) One (1) No. 12 A&P Annealing Furnace, identified as S002A, constructed in 1967, fired by natural gas and exhausting to fugitive emission point P005, using low NOx burners with flue gas recirculation with a heat input capacity of 29.0 million British thermal units per hour, maximum capacity: 27 tons of steel per hour, and total maximum heat input capacity: 69.0 million British thermal units per hour.

(c) One (1) No. 11 A&P Line Jet Cool Unit, identified as S001B, constructed in 1981, using a baghouse identified as D001 as control, and exhausting to stack P002, maximum capacity: 27 tons of steel per hour.

(d) One (1) No. 11 A&P Line Shot Blast Unit, identified as S001C, constructed in 1967 and replaced in 1995, using a baghouse identified as D002 as control, and exhausting to stack P003, maximum capacity: 27 tons of steel per hour.

(e) One (1) No. 11 A&P Acid Pickling Facility, identified as S001D, constructed in 1967, using a chemical scrubber identified as D003 as control, and exhausting to stack P004, maximum capacity: 27 tons of steel per hour.

(f) One (1) No. 12 A&P Kolene Rinse, identified as S002C, constructed in 1967 and replaced in 1996, using a chemical scrubber identified as D003 as control, and exhausting to stack P004, maximum capacity: 27 tons of steel per hour.

(g) One (1) No. 12 A&P Line Acid Pickling Facility, identified as S002D, constructed in 1967, using a chemical scrubber identified as D003 as control, and exhausting to stack P004, maximum capacity: 27 tons of steel per hour.

(h) One (1) North Boiler, identified as S006, installed in 1966, fired by natural gas and exhausting to stack P011, maximum heat input capacity: 20.92 million British thermal units per hour.

(i) One (1) Middle Boiler, identified as S007, installed in 1966, fired by natural gas and exhausting to stack P012, maximum heat input capacity: 10.46 million British thermal units per hour.

(j) One (1) South Boiler, identified as S008, installed in 1966, fired by natural gas and exhausting to stack P013, maximum heat input capacity: 10.46 million British thermal units per hour.

(k) One (1) Strip Grinder**/Polisher**, identified as S003A, composed of four (4) grinding heads and four (4) eliminators, constructed in 1967, using oil mist eliminators identified as D004, D005 and D006 as control, and exhausting to stack P007, maximum capacity: 25 tons of steel per hour.

~~(l) One (1) Strip Polisher, identified as S003B, constructed in 1967, and exhausting to stack P008, maximum capacity: 25 tons of steel per hour.~~

~~(m)~~**(l)** One (1) Z-Mill, identified as S004, constructed in 1967, using an oil mist eliminator identified as D007 as control, and exhausting to stack P009, maximum capacity: 35 tons of steel per hour.

~~(n)~~**(m)** One (1) Temper Mill, identified as S005, constructed in 1967, and exhausting to fugitive emission point P010, maximum capacity: 50 tons of steel per hour.

~~(o)~~**(n)** Three (3) Parts Cleaners, identified as S009A, constructed between 1980 and 1988, using a sealed reservoir as control, and exhausting to fugitive emission point P014, maximum throughput: 0.5 gallons of mineral spirits per hour.

~~(p)~~**(o)** One (1) Parts Cleaner, identified as S009B, constructed between 1980 and 1988, using a sealed reservoir as control, and exhausting to fugitive emission point P015, maximum throughput: 0.5 gallons of kerosene per hour.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

**(a)** The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.

**(b) One (1) Soap and water cleaning operation, identified as S003B, constructed in 1967, and exhausting to stack P008, maximum capacity: 25 tons of steel per hour.**

All lettering changes in Sections A.2 and A.3 have been made to the appropriate D Section Facility Description boxes.

~~D.2.5 Opacity [326 IAC 5-1]~~

~~(a) In accordance with Agreed Order, Cause A-3586, the Permittee shall monitor the chemical scrubber (D003) for compliance with 325 IAC 5-1. Observations shall be made a minimum of two (2) hours per week during times when the pickling line is in operation. The time of observations shall be staggered and not completed in a single day. Each opacity reading shall be a minimum of six (6) minutes in length. Such observations shall be in accordance with US EPA Method 9.~~

~~(b) In accordance with Agreed Order, Cause A-3586, if violations are noted in the Permittee's quarterly reports, IDEM may require a compliance plan detailing steps to be taken to alleviate the violations and to increase self monitoring to six (6) hours per week. The compliance plan shall be submitted within sixty (60) days from notification from IDEM of the requirement of a compliance plan. The increased self monitoring shall commence within fifteen (15) days from IDEM's notification of the requirement.~~

~~(c) Upon mutual agreement between the Permittee and IDEM, the Permittee may conduct a source test for PM at the chemical scrubber in lieu of requirements of (b). In order to substitute the source test for the compliance plan, the Permittee must demonstrate compliance with the applicable limits set forth in C.2 and D.2.1 and conduct the source test within ninety (90) days of the calendar month in which the opacity exceedances occurred.~~

D.2.~~6~~ **5** Visible Emissions Notations

(a) Daily visible emission notations of the No. 11 A&P Line Acid Pickling, No. 12 A&P Line Acid

Pickling, and No. 12 A&P Line Kolene Rinse (S001D, S002D, and S002C) stack (P004) exhaust shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

Condition D.2.7 has been renumbered D.2.6.

D.2.~~8~~ **7** Record Keeping Requirements

(a) To document compliance with Condition D.2.1, D.2.4, and ~~D.2.6~~ **D.2.5**, the Permittee shall maintain records of daily visible emission notations of the No. 11 A&P Line Acid Pickling, No. 12 A&P Line Acid Pickling, and No. 12 A&P Line Kolene Rinse (S001D, S002D, and S002C) stack (P004) exhaust.

(b) To document compliance with Condition C.3 ~~and D.2.5~~, the Permittee shall maintain records of opacity observations of the No. 11 A&P Line Acid Pickling, No. 12 A&P Line Acid Pickling and No. 12 A&P Line Kolene Rinse (S001D, S002D and S002C) stack (P004) exhaust.

(c) To document compliance with Condition D.2.7, the Permittee shall maintain the following:

(1) Daily records of the following operational parameters during normal operation when venting to the atmosphere:

(A) pressure drop;

(B) scrubbing liquid (water) flow rate; and

(C) recirculation PH.

(2) Documentation of all response steps implemented, per event.

(3) Operation and preventive maintenance logs, including work purchases orders, shall be maintained.

(4) Quality Assurance/Quality Control (QA/QC) procedures.

(5) Operator standard operating procedures (SOP).

(6) Manufacturer's specifications or its equivalent.

(7) Equipment "troubleshooting" contingency plan.

(8) Documentation of the dates vents are redirected.

(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

~~D.2.9 Reporting Requirements~~

~~In accordance with Agreed Order, Cause A-3586, reports of visible emissions monitoring will be submitted within thirty (30) days after the end of each calendar quarter.~~

D.3.3 Reporting Requirements

The Permittee shall certify within thirty (30) days after the end of the ~~quarter~~ **six-month period** being reported, using the reporting form located at the end of this permit, or its equivalent, which fuels were fired in the boilers during the report period and the dates of use.

## SECTION D.4 FACILITY OPERATION CONDITIONS

**Facility Description [326 IAC 2-7-5(15)]**

(k) One (1) Strip Grinder**/Polisher**, identified as S003A, composed of four (4) grinding heads and four (4) eliminators, constructed in 1967, using oil mist eliminators identified as D004, D005 and D006 as control, and exhausting to stack P007, maximum capacity: 25 tons of steel per hour.

~~(l) One (1) Strip Polisher, identified as S003B, constructed in 1967, and exhausting to stack P008, maximum capacity: 25 tons of steel per hour.~~

**Emission Limitations and Standards [326 IAC 2-7-5(1)]**

D.4.1 Particulate Matter (PM) [326 IAC 6-3-2(c)]

The particulate matter (PM) emissions from the Strip Grinder**/Polisher** ~~and Strip Polisher~~ (S003A ~~and S003B~~) ~~each~~ shall be limited to 35.4 pounds per hour for a process weight rate of 25.0 tons per hour~~, each~~. The limits stated above are based on the following equation for facilities with process weight rates of up to 60,000 pounds per hour:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour, and
P = process weight rate in tons per hour.

D.4.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the Strip Grinder**/Polisher** and its control device.

**Compliance Determination Requirements**

D.4.3 Testing Requirements [326 IAC 2-7-6(1),(6)]

The Permittee is not required to test ~~these facilities~~ **this facility** by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the ~~facilities are~~ **facility is** in compliance. If testing is required by IDEM, compliance with the PM limit specified in Condition D.4.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

**Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

D.4.4 Particulate Matter (PM)

The mist eliminators (D004, D005 and D006) for PM control shall be in operation at all times when the Strip Grinder**/Polisher** is in operation and exhausting to the outside atmosphere.

D.4.5 Oil Mist Eliminator Inspections

The following inspections shall be performed of the oil mist eliminators (D004, D005, and D006) controlling the Strip Grinder**/Polisher** when venting to the atmosphere.

(1) Monthly inspections of the motor amperages during normal operation:

(2) Quarterly inspections of the following operational parameters during normal operation:

(A) Mist eliminator inspections for oil/solids build up and plugging. Clean, as required.

(B) Fan impeller inspections for solids buildup or erosion. Clean or repair, as required.

(3) Annual inspections of the exhaust system components for solids buildup and signs of corrosion or excessive wear which may impact the operation of the oil mist eliminators. Clean or replace, as required.

D.4.7 Visible Emissions Notations

(a) Daily visible emission notations of the Strip Grinder**/Polisher** stack exhaust (P007) shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

**Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

D.4.8 Record Keeping Requirements

(a) To document compliance with Condition D.4.5, the Permittee shall maintain the following:

(1) Monthly records of the motor amperage inspections during normal operation when venting to the atmosphere.

(2) Quarterly records of the following operational parameters during normal operation when venting to the atmosphere:

(A) Mist eliminator inspections for oil/solids build up and plugging.

(B) Fan impeller inspections for solids buildup or erosion.

(3) Annual records of the inspections of exhaust system components for solids buildup and signs of corrosion or excessive wear which may impact the operation of the oil mist eliminators.

(4) Documentation of all response steps implemented, per event.

(5) Operation and preventive maintenance logs, including work purchases orders, shall be maintained.

(6) Quality Assurance/Quality Control (QA/QC) procedures.

(7) Operator standard operating procedures (SOP).

(8) Manufacturer's specifications or its equivalent.

(9) Equipment "troubleshooting" contingency plan.

(10) Documentation of the dates vents are redirected.

(b) To document compliance with Condition D.4.4 and D.4.7, the Permittee shall maintain records of daily visible emission notations of the Strip Grinder**/Polisher** (S003A) stack (P007) exhaust.

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

**SECTION D.7 FACILITY OPERATION CONDITIONS**

| |
|---|
| **Facility Description [326 IAC 2-7-5(15)]** - Insignificant Activities |
| **(a)** The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment. |
| **(b)** **One (1) Soap and water cleaning operation, identified as S003B, constructed in 1967, and exhausting to stack P008, maximum capacity: 25 tons of steel per hour.** |

**Emission Limitations and Standards [326 IAC 2-7-5(1)]**

D.7.1 Particulate Matter (PM) [326 IAC 6-3]

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the brazing equipment, cutting torches, soldering equipment, and welding equipment **and from the soap and water cleaning operation** shall not exceed allowable PM emission rate based on the following equations:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

or

Interpolation and extrapolation of the data for the process weight rate in excess of 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 55.0 P^{0.11} - 4$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

**Conclusion**

The source shall be subject to the conditions of the attached proposed Part 70 Significant Permit Modification No. 065-12537-00014. Only the revised permit are included in the proposed Significant Permit Modification.